ABSTRACT OF THE DISCLOSURE

A novel receptor-type protein tyrosine phosphatase- κ (RPTP κ) protein or glycoprotein and the DNA coding therefor is expressed in a wide variety of mammalian tissues. The RPTP κ protein or glycoprotein may be produced by recombinant means. Antibodies to the protein, methods for measuring the quantity of the protein, methods for screening compounds, such as drugs, which can bind to the protein and inhibit or stimulate their enzymatic activity, are provided. Further, methods for inhibiting homophilic binding of Type II RPTP, especially RPTP κ molecules are provided.